

Listing of Claims:

1. (Currently Amended) ~~A method Method~~ for estimating ~~the an~~ interference power increase in ~~the an~~ uplink direction due to a transaction in a spread spectrum cellular telecommunication system, ~~characterized in that~~ comprising calculating the interference power increase estimate ~~is calculated~~ at least partly on ~~the a~~ basis of:

[[-]] current fractional load,

[[-]] current received interference power level, and

[[-]] a load factor ΔL , which is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta L = \frac{1}{1 + \frac{W}{SIR \cdot R}}$$

~~where W is a chiprate, R is a bitrate of a new transaction, and SIR is an on the basis of the chiprate, the bitrate of the new transaction, and the estimated required signal-to-interference ratio for the a service type of the new transaction.~~

2. (Canceled)

3. (Currently Amended) The method of claim 1, ~~characterized in that~~ wherein the interference power increase estimate ΔP_{rx_total} is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta P_{rx_total} = \frac{\Delta L}{1 - \eta - \Delta L} P_{rx_total}$$

where η is ~~the a~~ current fractional load.

4. (Currently Amended) The method of claim 1, ~~characterized in that~~ wherein the interference power increase estimate ΔP_{rx_total} is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta P_{rx_total} = \frac{\Delta L}{1 - \eta} P_{rx_total}$$

where η is ~~the~~ a current fractional load.

5. (Currently Amended) The method of claim 1, ~~characterized in that~~ wherein the transaction is a new connection.

6. (Currently Amended) The method of claim 1, ~~characterized in that~~ wherein the transaction is ~~the~~ a transmission of a data packet.

7. (Currently Amended) ~~Admission~~ An admission control method in a spread spectrum cellular telecommunication system, ~~characterized in that~~ the method ~~comprises~~ comprising the steps of: in which

[[-]] measuring a ~~the current received~~ interference power ~~is measured~~ received at a receiver,

[[-]] estimating an ~~the~~ interference power increase due to a new requested connection is ~~estimated~~ at least partly on ~~the~~ a basis of current fractional load, current received interference power level, and a load factor ΔL , which is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta L = \frac{1}{1 + \frac{W}{SIR \cdot R}}$$

where W is a chiprate, R is a bitrate of the new requested connection, and SIR is an ~~on the basis of the chiprate, the bitrate of the new connection, and the estimated required signal-to-~~ interference ratio for ~~the~~ a service type of the new requested connection,

[[~~-~~]] comparing a ~~the~~ sum of said current received interference power and said interference power increase ~~is compared to a~~ treshhold threshold, and

[[~~-~~]] allocating resources ~~are allocated~~ for the new requested connection, if said sum is smaller than said ~~treshhold~~ threshold.

8. (Canceled)

9. (Currently Amended) The method of claim 7, ~~characterized in that the~~ wherein the interference power increase estimate ΔP_{rx_total} is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta P_{rx_total} = \frac{\Delta L}{1 - \eta - \Delta L} P_{rx_total} \text{ ,}$$

where η is the current fractional load.

10. (Currently Amended) The method of claim 7, ~~characterized in that~~ wherein the interference power increase estimate ΔP_{rx_total} is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta P_{rx_total} = \frac{\Delta L}{1 - \eta} P_{rx_total} \text{ ,}$$

where η is the current fractional load.

11. (Currently Amended) Method A method for scheduling data packets in a spread spectrum cellular telecommunication system, ~~characterized in that~~ the method ~~comprises~~ comprising the steps of: ~~in which~~

[[-]] measuring a ~~the~~ current ~~received~~ interference power ~~is measured~~ received at a receiver,

[[-]] estimating the interference power increase due to a transmission of a new packet is ~~estimated~~ at least partly on ~~the~~ a basis of current fractional load, current received interference power level, and a load factor ΔL , which is calculated in accordance with the relationship

$$\Delta L = \frac{1}{1 + \frac{W}{SIR \cdot R}},$$

where W is a chiprate, R is a bitrate which will be used in transmission of the packet, and SIR is ~~an essentially on the basis of the chiprate, the bitrate to be used in transmission of the packet, and~~ the estimated required signal-to-interference ratio for the successful transmission and reception of the packet,

[[-]] comparing a ~~the~~ sum of said current received interference power and said interference power increase to a threshold ~~is compared to a treshold~~, and

[[-]] allocating resources ~~are allocated~~ for the transmission of the packet, if said sum is smaller than said threshold ~~treshold~~.

12. (Canceled)

13. (Currently Amended) The method of claim 11, ~~characterized in that~~ wherein the interference power increase estimate ΔP_{rx_total} is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta P_{rx_total} = \frac{\Delta L}{1 - \eta - \Delta L} P_{rx_total}$$

where η is the current fractional load.

14. (Currently Amended) The method of claim 11, ~~characterized in that~~ wherein the interference power increase estimate ΔP_{rx_total} is calculated ~~essentially as~~ in accordance with the relationship

$$\Delta P_{rx_total} = \frac{\Delta L}{1 - \eta} P_{rx_total}$$

where η is the current fractional load.

15. (Currently Amended) ~~System~~ A system for estimating the interference power increase in ~~the~~ an uplink direction due to a new transaction in a spread spectrum cellular telecommunication system, ~~characterized in that~~ the system ~~comprises~~ comprising:

means for calculating the interference power increase estimate at least partly on ~~the~~ a basis of

[[-]] current fractional load,

[[-]] current received interference power level, and

[[-]] a load factor ΔL , and

means for calculating said load factor ΔL in accordance with the relationship

$$\Delta L = \frac{1}{1 + \frac{W}{SIR \cdot R}}$$

where W is a chiprate, R is a bitrate of the new transaction, and SIR is an ~~essentially on the basis of the chiprate, the bitrate of the new transaction, and the estimated required signal-to-interference ratio for the a service type of the new requested transaction.~~

16. (Canceled)

17. (Currently Amended) ~~Network~~ A network element of a cellular telecommunications network, ~~characterized in that the network element comprises~~ comprising:

means for calculating an interference power increase estimate due to a new transaction at least partly on the a basis of

[[-]] current fractional load,

[[-]] current received interference power level, and

[[-]] a load factor ΔL , and

means for calculating said load factor in accordance with the relationship

$$\Delta L = \frac{1}{1 + \frac{W}{SIR \cdot R}}$$

where W is a chiprate, R is a bitrate of the new transaction, and SIR is an ~~essentially on the basis of the chiprate, the bitrate of the new transaction, and the estimated required signal-to-interference ratio for the service type of the new transaction.~~

18. (Canceled)

19. (Currently Amended) The network element of claim 17, ~~characterized in that~~
wherein the network element is a radio network controller.

20. (Currently Amended) The network element of claim 17, ~~characterized in that~~
wherein the network element is a radio network controller of ~~the~~ a UMTS cellular system.